

Date: Tue, 16 Mar 93 06:30:10 PST
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #326
To: Info-Hams

Info-Hams Digest Tue, 16 Mar 93 Volume 93 : Issue 326

Today's Topics:

 A pair of coax <-> ladder line ???
 BIRD WATT METER SLUG INFO
 CTIA REPLY COMMENTS TO FCC DOCKET 93-01 (scanner ban)
 DESPERATE...NEED TO KNOW FACTS CONCERNING LEGALITY
 Guide to the Personal Radio Newsgroups
 Index to the rec.radio.amateur.* Supplemental Archives
 QSL Help Needed
 QSL help please
 SHINWA Comments?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 15 Mar 93 13:54:19 CST
From: ddsww1!gagme!precipice!ant-vent@uunet.uu.net
Subject: A pair of coax <-> ladder line ???
To: info-hams@ucsd.edu

kip@utxvms.cc.utexas.edu writes:

> I was once told that I can get the same efficiency benefits of open-wire line
> by using a pair of coaxial cables, shorting the shields together at both ends
> and using the two center conductors as the actual antenna leads. My source
> told me that this was not only as efficient as ladder line but also gave most
> of the shielding benefits of coax, and that I could bury the cables or in
> general just not worry about what they ran close to the way I would with ladd
> line.

>
> Is this true? Can I really hook such an arrangement up to a random length
> vertical and a ground plane, put a transmatch in my shack, and get good
> performance?

NO NO NO NO NO NO NO

The loss in transmission line is a function of the di-electric material.
the di-electric in open wire line is air. This is the best you can have
- other than a vacuum. Using co-ax as you have asked will give you a
balanced line, but the losses will be the same as using co-ax.

Contrary to popular belief, open wire line (when terminated in a balanced
load) will NOT radiate, even with a high VSWR. This is because the the
currents in the wires are equal and 180 deg. out of phase. The signals
radiated by each of the wires will be canceled by the signal radiated by
the other wire. A transmission line works by guiding a field from the
source to the load, and the field around open line extends out from the
line by approx. the spacing between the wires, so the line has to be kept
away from everything for its entire run.

I could write a book about this !!!!!

Date: 16 Mar 93 13:33:33 GMT
From: pipex!doc.ic.ac.uk!uknet!uos-ee!ee.surrey.ac.uk!M.Willis@uunet.uu.net
Subject: BIRD WATT METER SLUG INFO
To: info-hams@ucsd.edu

As a matter of interest how much is a 100W 250 MHz slug? I checked in the UK and
it is the sterling equivalent of \$88, after sales tax at 17.5%.

The cavity is also most expensive. If you can use a 100 uA meter, what is the
maximum reading? I have a 500W 50-125 MHz slug (ok on 144 MHz) and I need to
measure a kilowatt.

Mike

Date: Tue, 16 Mar 1993 13:19:24 GMT
From: sdd.hp.com!apollo.hp.com!hpwin052!hpmoea!dstock@network.UCSD.EDU
Subject: CTIA REPLY COMMENTS TO FCC DOCKET 93-01 (scanner ban)
To: info-hams@ucsd.edu

A QUESTION, from a distant land...

My UK licence requires me to keep equipment capable of verifying that my transmitters do not radiate any unwanted signals, and requires me to demonstrate my ability to use this test equipment should our equivalent of the FCC visit and ask. I expect that US amateurs are under some equivalent obligation to ensure their transmitters are clean.

I get the impression that your new law is so generally worded that it might outlaw even a simple passive wavemeter that could tune into the 800 MHz range, and compel them to have "microprocessor chips" to prevent them being tuned into this region. (without any statement about how they think microprocessors could do this!)

If this is so, how are you supposed to resolve this?

I wonder if the law is so generally worded that it makes the cellphones themselves illegal, this could cause great fun.

Will amateurs be granted a general waiver for equipment used to ensure compliance with transmitter cleanliness requirements ? or can those requirements themselves be waived?

David GM4ZNX

Date: Tue, 16 Mar 1993 12:59:34 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!usc!sdd.hp.com!
apollo.hp.com!hpwin052!hpqmoea!dstock@network.UCSD.EDU
Subject: DESPERATE...NEED TO KNOW FACTS CONCERNING LEGALITY
To: info-hams@ucsd.edu

I have experimented out of band many times, legally.

With a modern synthesised transceiver set for full range transmit, you have an excellent synth signal generator with more comprehensive modulation facilities than the most expensive lab jobs. You can either put it into transverter mode and use the transverter output socket, or else use a high power attenuator on the main output and wind down the output power. A wide range switched attenuator is a worthwhile addition.

I've used this to develop crystal filters at home, using a spare Rx as detector. Freq response, insertion loss, and return loss (or VSWR) can all be measured with good accuracy. Although I have a high quality non-synthesised signal generator, it is not sufficiently stable, nor can its frequency be set finely enough.

OK, I'm in a minority. There are plenty of people with store-bought radios, antennae and towers. There are plenty of people who experiment and build antennae and their accoutrements, but the number who experiment with the actual radios seems to have been shrinking for many years. I seem to be treated as a sort of endangered (and protected) species by the locals :-)

Just because someone wants to change a transmitter's frequency coverage is not a certain indication that he is about to join the "freebanders" or order pizza via police repeaters, although he could be!

Automatic flaming could hit the innocent. Aim carefully at a real guilty party, THEN pull the trigger all the way.

Cheers

David GM4ZNX

Date: Mon, 15 Mar 1993 12:00:44 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!
zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!news.unomaha.edu!
news@network.UCSD.EDU
Subject: Guide to the Personal Radio Newsgroups
To: info-hams@ucsd.edu

Posted-By: auto-faq 2.4
Archive-name: radio/personal-intro
Revision: 1.3 01/27/93 17:43:34
Changes: Added description of rec.radio.info

(Note: The following is reprinted with the permission of the author.)

This message describes the rec.radio.amateur.*, rec.radio.cb, rec.radio.info, and rec.radio.swap newsgroups. It is intended to serve as a guide for the new reader on what to find where. Questions and comments may be directed to the author, Jay Maynard, K5ZC, by Internet electronic mail at jmaynard@oac.hsc.uth.tmc.edu. This message was last changed on 27 January 1993.

History
=====

Way back when, before there was a Usenet, the Internet hosted a mailing list for hams, called (appropriately enough) INFO-HAMS. Ham radio discussions were held on the mailing list, and sent to the mailboxes of those who had signed up for it. When the Usenet software was created, and net news as we now know it was developed, a newsgroup was created for hams: net.ham-radio. The mailing list and the newsgroup were gatewayed together, eventually.

As the net grew, and as packet radio came into vogue, packet discussion began to dominate other topics in the group and on the list. This resulted in the logical solution: a group was created to hold the packet discussion, and another corresponding mailing list was created as well: net.ham-radio.packet and PACKET-RADIO, respectively.

These two groups served for several years, and went through Usenet's Great Renaming essentially unchanged, moving from net.ham-radio[.packet] to rec.ham-radio[.packet]. Readership and volume grew with the rest of the network.

The INFO-HAMS mailing list was originally run from a US Army computer at White Sands Missile Range, SIMTEL20. There were few problems with this arrangement, but one was that the system was not supposed to be used for commercial purposes. Since one of hams' favorite pastimes is swapping gear, it was natural for hams to post messages about equipment for sale to INFO-HAMS/rec.ham-radio. This ran afoul of SIMTEL20's no-commercial-use restriction, and after some argument, a group was created specifically for messages like that: rec.ham-radio.swap. This group wasn't gatewayed to a mailing list, thus avoiding problems.

While all this was happening, other folks wanted to discuss other aspects of the world of radio than the personal communications services. Those folks created the rec.radio.shortwave and rec.radio.noncomm newsgroups, and established the precedent of the rec.radio.* hierarchy, which in turn reflected Usenet's overall trend toward a hierarchical name structure.

The debate between proponents of a no-code ham radio license and its opponents grew fierce and voluminous in late 1989 and 1990. Eventually, both sides grew weary of the debate, and those who had not been involved even more so. A proposal for a newsgroup dedicated to licensing issues failed. A later proposal was made for a group that would cover the many recurring legal issues discussions. During discussion of the latter proposal, it became clear that it would be desirable to fit the ham radio groups under the rec.radio.* hierarchy. A full-blown reorganization was passed by Usenet voters in January 1991, leading to the overall structure we now use.

After the reorganization, more and more regular information postings began to appear, and were spread out across the various groups in rec.radio.*. Taking the successful example of the news.answers group, where informational postings from across the net are sent, the group rec.radio.info was created in December, 1992, with Mark Salyzyn, VE6MGS, initially serving as moderator.

The Current Groups
=====

I can hear you asking, "OK, so this is all neat history, but what does it

have to do with me now?" The answer is that the history of each group has a direct bearing on what the group is used for, and what's considered appropriate where.

The easy one is `rec.radio.amateur.misc`. It is what `rec.ham-radio` was renamed to during the reorganization. Any message that's not more appropriate in one of the other groups belongs here, from contesting to DX to ragchewing on VHF to information on becoming a ham.

The group `rec.radio.amateur.packet` is for discussions related to (surprise!) packet radio. This doesn't have to be the common two-meter AX.25 variety of packet radio, either; some of the most knowledgeable folks in radio digital communications can be found here, and anything in the general area is welcome.

The swap group is now `rec.radio.swap`. This recognizes a fact that became evident shortly after the original group was formed: Hams don't just swap ham radio gear, and other folks besides hams swap ham equipment. If you have radio equipment, or test gear, or computer stuff that hams would be interested in, here's the place. Equipment wanted postings belong here too. Discussions about the equipment generally don't; if you wish to discuss a particular posting with the buyer, email is a much better way to do it, and the other groups are the place for public discussions. There is now a regular posting with information on how to go about buying and selling items in `rec.radio.swap`; please refer to it before you post there.

The reorganization added two groups to the list, one of which is `rec.radio.amateur.policy`. This group was created as a place for all the discussions that seem to drag on interminably about the many rules, regulations, legalities, and policies that surround amateur radio, both existing and proposed. The neverending no-code debate goes here, as does the New Jersey scanner law, the legality of ordering a pizza on the autopatch, what a bunch of rotten no-goodniks the local frequency coordinating body is, and so on.

The other added group is `rec.radio.cb`. This is the place for all discussion about the Citizens' Band radio service. Such discussions have been very inflammatory in `rec.ham-radio` in the past; please do not cross-post to both `rec.radio.cb` and `rec.radio.amateur.*` unless the topic is genuinely of interest to both hams and CBers - and very few topics are.

The `rec.radio.info` group is just what its name implies: it's the place where informational messages from across `rec.radio.*` may be found, regardless of where else they're posted. As of this writing, information posted to the group includes Cary Oler's daily solar propagation bulletins, ARRL bulletins, the Frequently Asked Questions files for the various groups, and radio modification instructions. This group is moderated, so you cannot post to it directly; if you try, even if your message is crossposted to one of the other groups, your message will be mailed to the moderator, who is currently Mark

Salyzyn, VE6MGS. The email address for submissions to the group is `rec-radio-info@ve6mgs.ampr.ab.ca`. Inquires and other administrivia should be directed to `rec-radio-request@ve6mgs.ampr.ab.ca`. For more information about `rec.radio.info`, consult the introduction and posting guidelines that are regularly posted to that newsgroup.

The `rec.radio.amateur.misc`, `.packet`, and `.policy` groups, and the `rec.radio.info` group, are available by Internet electronic mail in digest format; send a mail message containing "help" on a line by itself to `listserv@ucsd.edu` for instructions on how to use the mail server. The `rec.radio.swap` group is not available by electronic mail; the gateway that was formerly available for posting at `ucbvax.berkeley.edu` has been shut down for all but users at UC Berkeley.

A Few Words on Crossposting =====

Please do not crosspost messages to two or more groups unless there is genuine interest in both groups in the topic being discussed, and when you do, please include a header line of the form "Followup-To: group.name" in your article's headers (before the first blank line). This will cause followups to your article to go to the group listed in the Followup-To: line. If you wish to have replies to go to you by email, rather than be posted, use the word "poster" instead of the name of a group. Such a line appears in the headers of this article.

One of the few examples of productive cross-posting is with the `rec.radio.info` newsgroup. To provide a filtered presentation of information articles, while still maintaining visibility in their home newsgroups, the moderator strongly encourages cross-posting. All information articles should be submitted to the `rec.radio.info` moderator so that he may simultaneously cross-post your information to the appropriate newsgroups. Most newsreaders will only present the article once, and network bandwidth is conserved since only one article is propagated. If you make regular informational postings, and have made arrangements with the moderator to post directly to the group, please cross-post as appropriate.

--

Jay Maynard, EMT-P, K5ZC, PP-ASEL | Never ascribe to malice that which can
`jmaynard@oac.hsc.uth.tmc.edu` | adequately be explained by a .sig virus.
"Liking clean systems and hating buggy ones is about as controversial as
preferring a warm puppy to the cholera bacillus." -- Tom Neff

--

73, Paul W. Schleck, KD3FU

`pschleck@unomaha.edu`

Celebrating 60 years of the Univ. of Maryland ARA - W3EAX (1933-1993)

Date: Mon, 15 Mar 1993 12:00:32 GMT
From: saimiri.primate.wisc.edu!zaphod.mps.ohio-state.edu!sol.ctr.columbia.edu!
news.unomaha.edu!news@ames.arpa
Subject: Index to the rec.radio.amateur.* Supplemental Archives
To: info-hams@ucsd.edu

Posted-By: auto-faq 2.4
Archive-name: radio/ham-radio/archives

The following is a list of informational files for this newsgroup
available via anonymous FTP from ftp.cs.buffalo.edu (currently at IP
number 128.205.32.9).

Questions to bowen@cs.buffalo.edu

1750m.band	- misc info on the 1750m band
ampr_coordinators	- coordinators for packet IP addresses
antenna_refs	- references for articles about antenna designs
arrl-logo.ps	- ARRL logo in PostScript format
arrl_bib	- bibliographies from ARRL literature (ASCII format)
arrl_digital_minutes	- Minutes of the ARRL committee on digital comm.
arrl_fo_jobs	- descriptions of some ARRL Field Organization jobs
arrl_info_service	- announcement of the ARRLs trial information service
cal_pd_freq	- California police frequencies
callbook.tar.Z	- sources for the marvin callsign server v1.3
canadian.Z	- Canadian ham database in FCC format
carpet.loop.2	- Antenna for apartments and small spaces
clubcalls.Z	- database of US ham clubs
comb6.zip	- HF Propagation Predication program
docket_91-36	- information regarding the proposed scanner regs
dxcc-k2di	- ARRL DXCC country list
element_credit	- rules about VE credit for earliers exams
elmers_admin	- information about the elmers list (see below)
elmers_list	- list of elmers on the network
exam_ops	- info on exams and exam opportunities
faq_callsign	- frequently asked questions about the callsign server
faq_ham_1	- frequently asked questions about ham radio (pts 1)
faq_ham_2	- frequently asked questions about ham radio (pts 2)
faq_ham_3	- frequently asked questions about ham radio (pts 3)
faq_packet	- frequently asked questions about packet radio
faq_shortwave	- frequently asked questions about shortwave
fft.com	- EGA/VGA DOS command for spectral display (QST 1/92)
ffth.com	- Hercules DOS command for spectral display (QST 1/92)
field_day_92	- field day rules for 1992

florida_antenna - Florida State antenna law info
 guide2newsgroups - description of USENET newsgroups dedicated to radio
 ham_sat_sum - summary of information needed to get on satellite
 hams_on_usenet - list of ham operators and e-mail addresses on the net
 hamstacks - information about the question pool stacks
 handicap_waiver - info on obtaining a handicapped test waiver
 hf_rigs - QST reviews of available HF rigs
 ht_info - general information about commercial hand helds
 intro_to_sw1 - info for aspiring short wave listeners
 intro_to_scanners - info for aspiring scanner listeners
 jlem.zip - Program, w/source, for 2kx8 ROM emulator, QEX 01/93
 j-poles - description of j-pole antenna made from twin-lead
 lead_acid_batteries - essay on lead-acid batteries
 license_plates - guide to ham calls on license plates
 logos - PostScript logos for various ham organizations
 mail_order - a database of electronic mail order shops
 manufacturers - names and addresses of ham gear manufacturers
 motorola_ge_service_man - how to get service manuals for Motorola and GE rigs
 new_packeteers - helpful essays for new packeteers
 newcomers - tips and hints for those new to amateur radio
 packet_clubs - organizations you can get more packet info from
 packet_gateways - list of gateways from packet to Internet
 packet_misc - miscellaneous packet info
 packet_software - list of packet software versions
 phone_bbs_list - phone BBSs for ham related issues/software
 pio_handbook - ARRL Public Information Officer's Handbook
 pr_docket_92-136 - text of FCC PR Docket 92-136
 qsl_bureau1 - information about the ARRL QSL bureau
 qsl_bureau2 - "what should I do if" list for the QSL bureau
 qst_prodev - index of ARRL product reviews in QST
 repeater_map_proj - description of Electronic Repeater Mapping Project
 rfi_tips - good posting about RFI
 sol_geo_data - description of daily solar geophysical broadcasts
 sol_terra_terms - glossary of solar-terrestrial terms
 sstv_wefax_info - general help for SSTV and WEFAX users
 usenet_purchases - tips on buying and selling via USENET

For readers of this newsgroup both new and experienced, these files are a de-facto "Required Reading List" to provide definitive answers and pointers to other sources for questions that come up in this forum.

This is also your archive, so any additional articles, guides, or small PostScript graphics that you feel would enhance this collection are most welcome. Submit to Devon via his E-mail address above.

Additional archives out there that have /pub/ham-radio directories are encouraged to "mirror" these files to provide redundant storage for these documents. Some of these sites (which may or may not mirror

ftp.cs.buffalo.edu) include:

ucsd.edu	128.54.16.1	/hamradio
nic.funet.fi	128.214.6.100	/pub/ham
csseq.cs.tamu.edu	128.194.2.20	/ham-radio
suntan.tandem.com	130.252.10.8	/hamradio
col.hp.com	15.255.240.16	/packet
talos.cs.buffalo.edu	128.205.32.9	/pub/ham-radio
bubba.business.uwo.ca	129.100.22.42	/hamster/ham
		/hamster/tcpip
		/hamster/mods
		/hamster/view
vax.cs.pitt.edu	130.49.2.1	/pub/arrl8
		/pub/ka9q
		/pub/ncpa
		/pub/tnc2
brolga.cc.uq.oz.au	130.102.128.5	/pub/ka9q
tomcat.gsfc.nasa.gov	128.183.10.100	/public
helios.tn.cornell.edu	128.84.241.2	/pub
wuarchive.wustl.edu	128.252.135.4	/mirrors/msdos/hamradio
		/mirrors/msdos/packet
		/mirrors/msdos/ka9q-tcpip
		/mirrors/cpm/hamradio
		/mirrors/cpm/packet
		/mirrors/misc/hamradio
		/mirrors/misc/packet
		/mirrors/misc/ka9q-tcpip
gatekeeper.dec.com	16.1.0.2	/pub/net/ka9q
sun.soe.clarkson.edu	128.153.12.3	/pub/ka9q
sics.se	192.16.123.90	/archive/packet
		/pub/packet-incoming
sabrina.dei.unipd.it	147.162.2.106	/pub/hamradio
uhunix2.uhcc.Hawaii.Edu	128.171.44.7	/incoming/ham-radio
caticsf.cati.csufresno.edu	129.8.100.15	/pub/ham-radio
ftp.waseda.ac.jp	133.9.1.32	/pub/toumon/ham-radio
garfield.catt.ncsu.edu	152.1.43.23	/pub/hamradio
plan9.njit.edu	128.235.1.10	/pub/hamradio
sunee.uwaterloo.ca	129.97.128.196	/pub/radio
grivel.une.edu.au	129.180.4.7	/pub/ham-radio
uxc.cso.uiuc.edu	128.174.5.50	/pub/ham-radio
iraun1.ira.uka.de	129.13.10.90	/pub/ham-radio
nic.switch.ch	130.59.1.40	/software/hamradio
		/software/mac/ham-radio
iesd.auc.dk	130.225.48.4	/ham-radio
akutaktak.andrew.cmu.edu	128.2.35.1	/aw0g (softkiss-mac)
??????????	129.69.162.1	/pub (login as ftp
		pkt cluster,usa callbook)
gandalf.umcs.maine.edu	130.111.112.21	/pub/ham-radio # ls -l NO !)

pit-manager.mit.edu	18.172.1.27	/pub/usenet/news.answers
tamu.edu	128.194.15.32	/pc-sig
ftp.geo.brown.edu	128.148.116.19	/pub/hamradio

Questions about FTP mirroring and access to appropriate software should be directed to me, or do an Archie search on the keyword "mirror."

For those without FTP access (and only those without FTP access, please), there is an FTP mail server at ftpmail@decwrl.dec.com (IP 16.1.0.1). Send the word "HELP" to this address for more information.

Additional documents on Usenet and other newsgroups may be obtained from pit-manager.mit.edu (IP 18.172.1.127) via anonymous FTP or via mail server (send the word "HELP" to mail-server@pit-manager.mit.edu).

The American Radio Relay League has recently made available a mail-server to distribute many of their informational documents in electronic form. Send E-mail to info@arrl.org with "HELP" in the message body for more information.

Thanks to Devon Bowen, KA2NRC, for providing diskspace and maintaining these valuable archives, as well as all the authors who wrote and submitted the information contained in them.

73, Paul W. Schleck, KD3FU

pschleck@unomaha.edu

Celebrating 60 years of the Univ. of Maryland ARA - W3EAX (1933-1993)

Date: 16 Mar 1993 14:55:37 +0200
From: news.tele.fi!news.funet.fi!butler.cc.tut.fi!lehtori.cc.tut.fi!not-for-mail@uunet.uu.net
Subject: QSL Help Needed
To: info-hams@ucsd.edu

Sorry the previous...
Just wanted to say that OH0MRR is via Jarmo's homecall OH1MRR.
pete

Date: 16 Mar 93 13:10:00 GMT
From: dog.ee.lbl.gov!overload.lbl.gov!agate!usenet.ins.cwru.edu!magnus.acs.ohio-state.edu!csn!ub!acsu.buffalo.edu!ubvmsd.cc.buffalo.edu!v111qheg@network.UCSD.EDU
Subject: QSL help please

To: info-hams@ucsd.edu

In article <1993Mar15.172900.23916@koccrsv01.delcoelect.com>, c22pmo@koccrsv01.delcoelect.com (Peter M Olin) writes...

>

>Does anybody have QSL info for the following:

>

>4N5CEF (a manager or the address of a Macedonian Buro)

Suggest going via the bureau

>NP2I

Via Bureau or Via Callbook Address (he's got nice cards!)

>T05M

Via Bureau

>R6L

Via Nureau and pray that it gets there. I you dont know why I'll let you know later!

>TM5C

Via Bureau

>TM5G (and what country it TM ?)

Via Bureau

>6D2X

Via KD5GY

>5G7M (and what country is this?)

Think this is a misscopied 5U7M. He qsl's via the JA Bureau

>VP5U

I think via a w4 somwthing. Can't remember

>pete olin WB8TIM

I hope this helps for now. Good luck es DX,

Peter KB2NMV

Westerm NY DX Assoc.

See you at Dayton!

Date: 16 Mar 93 02:38:19 GMT

From: usc!howland.reston.ans.net!bogus.sura.net!udel!gvls1!tredysvr!undr!

seanp@network.UCSD.EDU

Subject: SHINWA Comments?

To: info-hams@ucsd.edu

I am presently considering purchasing a Shinwa SH-405GII Portable. This is a 99 Channel Programmable (Of Course, that's Alotta Crystals) 450 - 470 Portable w/ LCD, scan, DTMF, etc.. It looks like a nice unit.. I'm not sure what the price is, but I'd like to get comments on the unit itself, and Shinwa quality in

End of Info-Hams Digest V93 #326
